Amendments to the Specification

Please replace the paragraphs on page 3, at lines 5-27, with the following amended paragraphs:

--The error correction encoding method for a high-density storage medium according to ~~an aspect of~~ the present invention, comprises the steps of: arranging sequential input data so as to form a plurality of data blocks of a predetermined matrix form, the plurality of data blocks being made sequentially, appending outer parity of a predetermined size to each column of each data block in the column direction, appending inner parity of a predetermined size to each row of each of the outer-parity-encoded data block in the row direction, reordering rows including outer parity so as to insert them separately into the other rows including no outer parity for each of the outer- and inner-parity-encoded data blocks, and reading out rows in the same order in the resulting data blocks sequentially and writing them to said storage medium on row-by-row basis.

The method of the present invention ~~is characterized in that it~~ can be used in error correction for higher density storage media than DVD and reading/writing apparatus for higher density storage media. Also, the error correction encoding method according to the present invention is easy to implement on existing DVD recorders, thereby enabling to develop players capable of reproducing storage media of two types, or DVD and next-generation high-density storage medium, with less hardware development and production

cost.--

Please replace the paragraphs beginning on page 4, line 17 through page 5, line 11, with the following amended paragraphs:

--The preferred embodiments of the present invention will be described in detail referring to the accompanying drawings.

FIG. 2 depicts a block diagram of a data writing apparatus according to an embodiment of ~~embodying~~ the present invention. As shown in FIG. 2, the data writing apparatus comprises a controller 10 for controlling constituting components; a first buffer 20 for arranging input digital data that are sequentially inputted so as to form data blocks of a predetermined matrix form (hereinafter, unit block), and producing a pair of unit blocks, i.e., a first unit block and a second unit block, in the input order, under control of controller 10; a second buffer 30 for temporarily storing, under control of controller 10, the pair of unit blocks transmitted from the first buffer 20; an error correction encoding unit 100 ~~having that consists of~~ an outer parity (PO) encoder 40 for appending outer parity of a predetermined number of bytes, in the column direction, to each column of the pair of unit blocks and an inner parity (PI) encoder 50 for appending inner parity of a predetermined number of bytes, in the row direction, to each row of the pair of the outer-parity-encoded unit blocks that have been temporarily stored in second buffer 30; and a data writer 60 for reading out rows in the same order in the pair of the resulting unit

blocks sequentially from second buffer 30 and writing the read-out rows into a high-density storage medium on row-by-row basis under control of controller 10.--

Please replace the paragraph beginning on page 5, line 28 through page 6, line 2, with the following amended paragraph:

--Once ~~the~~ generation of a pair of unit blocks, U(i,j) and V(i,j) ~~is are~~ completed, the two unit blocks are transmitted from first buffer 20 to second buffer 30 under control of controller 10. On the other hand, controller 10 repeatedly controls first buffer 20 such that another pair of unit blocks are formed in first buffer 20 by arranging the sequential input data.--

Please replace the paragraph on page 6, lines 20-30, with the following amended paragraph:

As shown in FIG. 5, the resulting unit blocks U(i,j) and V(i,j) are combined in such a manner that rows in the same order correspond to each other, ~~thereby forming one combined block~~. Then, sync data is generated and inserted into appropriate positions of each row of the combined block. Finally, under control of controller 10 data writer 60 reads out data in one row of the combined block at a time from second buffer 30, as shown in FIG. 5 and modulates and writes the row including 364-byte data and inserted sync data onto high-density storage medium 70 sequentially. Such writing operation is

repeated until 208 rows of the combined block are written onto high-density storage medium 70.--